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REPORT NO. 8

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PROCUREMENT SECTION  
CURRENT SERIAL RECORDS

## Cotton Fiber and Processing Test Results

CROP of 1970



Consumer and Marketing Service  
U.S. DEPARTMENT OF AGRICULTURE  
Memphis, Tenn. 38117 November 27, 1970

This is the eighth of a series of reports of fiber and processing test results from the 1970 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as AID 344, Summary of "Cotton Fiber and Processing Test Results, Crop of 1969, May 1970." These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, Memphis, Tennessee.

## COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1970

### Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that average fibers are finer than last year for all medium staple samples tested through November 20, 1970. The remainder of the fiber properties are about the same as a year ago. Yarns spun from these samples show less strength with other yarn quality factors about the same. Average spinning potential yarn number is higher than a year ago.

Southwestern short staple samples are longer, coarser and stronger at 1/8-inch gage strength. Picker and card waste is lower. Yarns spun from these samples are stronger with the other yarn quality factors about the same as last year. Average spinning potential yarn number is higher, reflecting the longer fibers.

Southeastern medium staple samples are shorter, finer and show less picker and card waste than a year ago. Yarns spun from these samples show fewer imperfections with the other yarn quality factors about the same.

South Central medium staple samples are shorter and weaker than last year. Yarns spun from these samples are weaker with slightly lower appearance grades.

Southwestern medium staple samples are longer, stronger at 1/8-inch gage and show a higher Shirley Analyzer nonlint content than a year ago. Yarns spun from these samples are weaker with lower appearance grades and more imperfections. Average spinning potential yarn number is higher than a year ago, reflecting the longer fibers.

Western medium staple samples are finer, weaker and show a lower picker and card waste compared to last year. Yarn quality is about the same. Average spinning potential yarn number is higher.

Western long staple samples are finer and stronger than a year ago. Yarns show poorer appearance grades and more imperfections.

Table 1.--Cotton:

processing tests from selected through November 20, 1970

ber and processing tests from selected gin points in the United States through November 20, 1970 1/

1

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness		Fiber strength 1/8"		S A nonlint		P & C waste		Yarn quality	
		2.5% span	50/2.5 unif.	Zero gage	gage	G/tex	Pct.	Pct.	Pct.	Skein str.	Appearance	Imper- fections	Spin. Potent.
No.	No.	Inches	Inches	Rdg.	Mpsi		Pct.	Pct.	Pct.				
Short Staple:													
Southwest	22	0.90	46	4.3	88	19.8	3.4	7.0	88	118	25	38	
	20	0.95	46	4.5	87	21.2	3.7	6.4	91	116	25	44	
Medium Staple:													
Southeast	67	1.10	46	4.7	83	23.1	3.2	7.1	104	102	21	60	
	68	1.08	45	4.5	83	22.9	3.5	6.6	103	102	17	61	
South Central	148	1.10	45	4.7	85	22.9	2.9	6.4	108	113	19	61	
	87	1.08	45	4.7	82	22.4	2.9	6.0	102	110	19	62	
Southwest	33	1.05	46	4.5	87	22.1	2.7	6.2	109	122	19	59	
	41	1.09	46	4.5	86	22.7	3.2	6.1	103	118	23	65	
West	29	1.10	45	4.5	95	25.5	2.9	6.3	121	115	22	66	
	33	1.10	45	4.3	93	25.0	2.6	5.4	118	117	21	71	
U.S. Average													
1969	277	1.09	45	4.7	86	23.1	2.9	6.5	109	112	20	61	
	229	1.08	45	4.5	85	23.0	3.1	6.1	105	110	19	64	
Significant difference 2/		0.02	2	0.2	2	0.5	0.5	0.5	4(22s)	4(22s)	2(50s)	5	3

### Significant difference 2/

1/2

1

100

Based on a limited number of samples of modal quality Minimum differences considered to be significant for based upon averages of a number of lots and are not an

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through November 20, 1970

1/ (continued)

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness		1/8" gage		S A nonlint waste		P & C waste		Yarn quality	
		2.5% span	50/2.5 unif.	Zero gage	1/8" gage	Skein str.	Appearance	Imperf- ections	Index	22s	Carded	Yarn No.	Spin. Potent.
No.													
<u>Long Staple:</u>													
Southeast													
1970	12	1.15	45	4.7	82	23.4	4.6	8.6	110	103	21	66	
South Central	3	1.15	42	4.7	86	23.3	4.4	8.9	100	93	27	61	
West													
1969	5	1.16	45	4.1	93	25.7	2.9	7.5	134	102	19	76	
1970	7	1.17	45	3.8	95	27.8	3.0	7.4	136	91	32	76	
Extra Long Staple:													
West													
1969	1	1.41	31	4.0	101	32.0	2.8	7.0	67	110	1		
1970	2	1.52	30	3.9	98	34.9	2.2	6.7	67	115	2		
<u>50's Combed Yarn</u>													
Significant dif- ference 2/		0.02	2	0.2	2	0.5	0.5	0.5	4(22s)				
									2(50s)	5	2	3	

1/ Based on a limited number of samples of modal quality  
 2/ Minimum differences considered to be significant for comparisons in this table. These guides are  
 based upon averages of a number of lots and are not applicable to individual samples.

1/

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number		Fiber Test Results								Processing Test Results - Carded Yarns								Spin. Poten- tial No No			
		Digital Fibrograph		Fiber Strength		Elong- at'n 1/8"		S.A. Non- lint		Color Raw Stock		P & C Waste		Elongation		Appearance Index		Imprfect's 8s or 22s or 74 tx 27 tx			
No	Grade	Staple	2.5% span	Unif	Mike	Zero Gage	1/8" Gage	G/tex	G/tex	Pct	Pct	No	No	Pct	Lbs	Pct	Pct	No	No		
SOUTHWESTERN AREA NORTHWEST TEXAS																					
HASKELL	1 MID LT SP	32	0.91	45	5.1	84	20.4	7.1	2.8	2	4	5.7	285	84	6.3	5.6	120	120	50	30	37
LITTLEFIELD	1 SIM LT SP	42	0.89	46	4.6	90	20.4	6.3	3.9	3	4	5.9	302	91	6.3	5.5	120	110	49	29	41
MORTON	1 SIM	29	0.89	46	5.2	87	20.9	6.4	2.7	3	4	5.6	282	85	5.9	5.2	120	120	55	28	37
PETERSBURG	1 SIM	32	0.97	48	4.3	90	22.7	7.4	3.2	2	4	5.7	339	100	7.2	5.9	120	110	63	35	55

Table 3 -- Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification				Fiber Test Results								Processing Test Results - Carded Yarns										
No	Sample Number	Digital Fibrograph		Fiber Strength		Elongation 1/8"		S.A. Raw Stock		P & C Waste		Strength		Elongation		Appearance Index		Imperfections				
		Grade	Staple	2.2% span	Unif.	Mike Zero Gage	Gage	1/8"	Gage	Non-Lint	Raw Stock	Yel	22s or 50s or 27s or 12tx	50s or 27s or 12tx	22s or 50s or 27s or 12tx	50s or 27s or 12tx	No	No	No	No		
SOUTHEASTERN AREA																						
ALABAMA																						
HOLLYVILLE	51	35	1.13	4.3	4.0	82		22.8	5.4	3.0	3	3	6.3	99 PERCENT	39	6.8	5.5	90	70	29	19	64
LA FAYETTE	52	34	1.08	4.5	4.3	78		21.9	5.4	4.1	4	3	7.1	80 PERCENT	32	6.5	4.9	100	80	19	11	58
RED LEVEL	52	34	1.03	4.5	4.6	82		22.7	5.3	3.7	4	3	7.2	80 PERCENT	26	5.8	4.0	100	80	24	16	52
ST. CLAIR	51	34	1.09	4.5	4.4	82		22.2	5.0	3.8	2	3	6.9	100 PERCENT	33	6.0	4.7	100	80	26	18	58
SYLACAUGA	2 SLIM	41	1.03	4.4	4.5	83		22.3	5.0	2.7	2	3	6.6	100 PERCENT	31	6.2	4.5	100	70	22	18	58
GEORGIA																						
COLBERT	3 SLIM LT SP	42	34	1.09	4.6	4.6	80	23.4	5.7	3.3	2	3	6.6	100 PERCENT	35	6.7	5.1	110	90	17	14	61
PINEHURST	51	34	1.15	4.6	4.3	83		23.2	5.0	3.5	3	3	6.3	100 PERCENT	39	6.8	5.3	100	90	16	13	64
TENNILLE	4 IM	51	33	1.06	4.5	4.8	85	21.7	5.3	4.9	4	3	8.1	90 PERCENT	28	6.0	4.4	90	70	22	18	55
NORTH CAROLINA	LAURINBURG	51	34	1.04	4.6	4.3	82	22.4	5.6	5.2	3	2	7.8	100 PERCENT*	35	6.5	5.2	100	80	19	20	56
SOUTH CENTRAL AREA																						
ARKANSAS																						
FOREMAN	2 LM	1/51	34	1.10	4.2	4.5	84	24.5	8.0	2.5	2	2	6.3	95 PERCENT	35	6.3	4.9	110	90	21	21	64
HELENA	1 SLIM	41	35	1.10	4.5	4.6	77	22.2	7.1	2.9	2	3	5.6	99 PERCENT	37	6.3	5.0	120	80	25	20	73
	2 SLIM	41	35	1.12	4.4	4.1	81	23.2	8.0	1.9	2	2	5.5	103	39	6.7	5.0	120	90	20	16	69

\* 100 percent selected for tests, less than 100 percent in the area.

1/ Reduced from 41 because of grass.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification				Fiber Test Results										Processing Test Results - Carded Yarns										
				Digital Fibrograph		Fiber Strength		S.A. Non-Lint		Color Stock		P & C Waste		Strength		Elongation		Appearance Index		Imperf'tns		Spin. Potential		
No	Grade	Sample Number	Staple	2.5% span	Unif.	Mike Zero	1/8" Gage	1/8" Gage	Non-Lint	Gra.	Yel	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	22s or 50s	No	No	No	No
22s				In	Pet	Edge		Mpsi	G/tex	Pct	Pct	No	No	Pct	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	
SOUTH CENTRAL AREA---(Continued)																								
HUGHES	2 SLM	41	34	1.09	44	4.5	82	21.2	6.9	3.0	3	4	100 PERCENT	6.3	95	32	5.8	4.3	110	80	30	25	60	60
LEACHVILLE	3 LM	51	34	1.09	46	4.0	88	22.0	6.5	2.8	4	2	100 PERCENT	6.3	100	35	5.3	4.0	100	80	35	28	65	65
MARKED TREE	2 SLM	41	35	1.09	47	4.9	78	21.2	7.2	3.2	3	3	90 PERCENT	6.2	97	33	5.6	4.0	120	100	20	15	58	58
LOUISIANA																								
LAFAYETTE	2 LM	51	34	1.10	46	4.5	82	21.5	5.9	3.4	4	3	85 PERCENT	6.2	96	32	5.3	3.7	120	90	25	17	65	65
TRANSYLVANIA																								
2 SLM LT SP	42	34	1.13	44	4.3	78	21.8	7.7	3.2	3	3	100 PERCENT	6.4	104	37	6.1	4.8	110	90	32	22	74	74	
MISSISSIPPI																								
BRUCE	3 LM	51	33	1.04	44	4.6	83	22.1	5.4	2.8	4	3	80 PERCENT	6.0	94	29	6.5	4.7	100	80	18	13	53	53
CLARKSDALE																								
2 SLM	51	35	1.08	44	4.6	78	23.9	5.6	4.1	3	2	7.2	95	31	6.4	5.0	100	80	35	26	53	53		
HOLLY SPRINGS																								
2 SLM	41	35	1.13	45	4.6	78	22.9	6.7	3.3	2	3	95 PERCENT	5.7	103	36	7.3	5.9	100	90	17	13	59	59	
INDIANOLA																								
2 LM	51	35	1.10	46	4.7	91	23.7	4.5	4.1	4	3	100 PERCENT	7.4	95	31	5.8	4.3	100	80	25	20	57	57	
INDIANOLA																								
2 SLM	41	35	1.10	46	4.8	83	22.1	5.4	3.1	3	3	100 PERCENT	6.1	98	32	6.3	4.7	90	80	22	19	55	55	
LAKE CORMORANT																								
2 SLM	41	35	1.14	46	4.5	78	23.2	6.6	3.2	2	2	6.2	106	37	7.5	5.8	100	80	18	15	61	61		
PANTHER BURN																								
2 SLM	41	35	1.14	44	4.2	78	23.2	6.3	3.0	2	2	6.0	112	41	7.2	5.8	100	80	22	15	67	67		

Table 3--Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (continued)

Production Area, Classification	Fiber Test Results										Processing Test Results - Carded Yarns												
	Sample Number		Digital Fibrograph		Fiber Strength		S.A.		Color		Strength		Elongation		Appearance Index		Imperfect's		Spin. Potential				
	No	Grade	Stple	2.5% span	Unif.	Mike	Zero Gage	1/8" Gage	Non-Lint	Raw Stock	P & C	22s or 20s	22s or 20s	22s or 20s	22s or 20s	No	No	No	No	No	No		
No	Name & Code	32s	In	Pct	Rdg	Mpsi	Gtex	Pct	No	Pct	No	Pct	No	Pct	No	Pct	No	Pct	No	No	No		
SOUTH CENTRAL AREA---(Continued)																							
MISSISSIPPI	TRALAKE	41	35	1.12	42	4.0	82	24.0	16	6.1	108	38	7.5	5.6	100	80	21	15	60	62			
MISSOURI	SIRESTON	2 SLM	34	1.08	45	4.4	78	23.3	7.2	3.8	3	95 PERCENT	5.9	4.6	120	90	34	20					
TENNESSEE	BOLIVER	3 SLM	34	1.09	45	4.6	78	22.4	7.2	2.0	2	100 PERCENT	5.2	107	37	7.6	5.9	100	90	16	12	60	
	DYERSBURG	2 SLM LT SP	42	34	1.06	44	4.7	80	22.5	5.6	2.7	3	90 PERCENT	5.8	97	31	6.5	4.8	100	90	16	13	58
	LEXINGTON	2 SLM LT SP	42	34	1.04	46	4.3	80	21.1	5.3	3.5	3	100 PERCENT	6.1	94	30	6.2	4.5	100	70	24	20	52
	MILLINGTON	2 SLM	41	34	1.05	46	4.3	79	21.2	5.3	2.3	3	90 PERCENT	6.3	88	29	6.2	4.8	90	70	22	20	52
	WINNIBURG	2 SLM	41	34	1.12	47	4.7	80	22.8	6.3	2.2	2	90 PERCENT	5.8	104	36	7.1	5.4	100	80	18	14	58
SOUTHWESTERN AREA																							
	CENTRAL TEXAS																						
	RYAN	3 SLM LT SP	42	34	1.09	44	4.7	82	21.9	6.5	2.3	4	100 PERCENT	6.3	88	29	5.4	3.8	110	90	30	28	56
	NAVASOTA	3 SLM	41	34	1.09	44	4.6	84	22.3	7.0	2.4	2	100 PERCENT	5.7	101	32	5.5	3.9	120	90	20	20	59
	SUGAR LAND	3 TM SP	53	34	1.08	44	4.4	91	19.6	4.9	7.6	6	100 PERCENT	11.7	78	22	4.1	2.3	100	80	45	37	48
	NORTHWEST TEXAS																						
	LUBBOCK	1 TM	51	33	1.05	43	4.1	86	23.8	6.4	4.0	3	100 PERCENT	7.1	101	34	5.7	4.1	100	70	49	36	56
	ROPPESVILLE	1 MID	31	33	1.04	45	3.6	89	23.3	6.9	2.0	2	100 PERCENT	5.3	112	41	6.3	4.9	110	80	30	25	68

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970--(Continued)

Production Area, Classification & Sample Number	Fiber Test Results										Processing Test Results - Carded Yarns										
	Digital Fibrograph		Mike Unif. span		S.A. Elong- at'n 1/8" Gage		S.A. Non- Lint 1/8"		Color Raw Stock		Strength		Elongation		Appearance Index		Imperfect's 22s or 27 tx		Spin. Potential		
	No	Grade	Stple	2.5% span	32s	In	Pct	Rdg	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Lbs	Pct	No	No	
SOUTHWESTERN AREA---(Continued)																					
NORTHWEST TEXAS---(Continued)		SMYER										PAYMASTER									
1	SIM	41	31	0.98	45	4.5	91	22.2	6.5	3.4	3	4	5.9	101	31	5.5	3.5	120	90	25	20
OKLAHOMA		ALTUS										DELTA PINE									
2	SIM	41	35	1.16	44	4.2	92	23.7	6.6	2.9	2	2	6.3	107	38	5.7	4.3	110	80	30	27
WESTERN AREA																					
CALIFORNIA		BAKERSFIELD										ACALA SJ-1									
2	SIM	41	36	1.14	44	3.8	98	26.3	5.4	3.1	2	3	6.1	128	48	5.7	4.6	110	80	23	19
BUTTERWILLOW		2 MID										ACALA SJ-1									
31		36	1.11	45	4.4	95	26.4	5.8	2.6	1	3	5.4	120	44	5.7	4.3	120	90	19	15	
CHOCOCHILLA		1 SIM										ACALA SJ-1									
41		36	1.12	47	4.6	100	26.4	5.4	2.2	1	3	4.6	132	50	5.8	4.5	130	100	14	9	
COALINGA		1 MID										ACALA SJ-1									
31		36	1.11	46	4.4	100	26.6	5.6	1.9	1	3	5.3	124	46	5.7	4.3	130	90	19	12	
CORCORAN		2 MID										ACALA SJ-1									
31		36	1.10	46	4.3	102	26.7	5.6	2.2	2	3	5.2	121	46	5.6	4.5	120	90	14	10	
FIREBAUGH		1 MID										ACALA 4-42									
31		36	1.09	46	4.1	91	25.9	6.6	2.0	1	3	5.7	124	45	6.0	4.8	120	100	15	10	
HANFORD		1 MID										ACALA SJ-1									
31		35	1.07	45	4.1	100	25.6	5.1	2.0	1	3	4.3	124	46	5.4	4.3	120	90	14	12	
LOST HILLS		2 MID										ACALA SJ-1									
31		36	1.12	44	4.2	98	25.6	5.6	2.5	1	3	4.8	128	48	5.7	4.3	120	90	18	14	
SAN JOAQUIN		1 MID										ACALA 4-42									
31		35	1.06	47	4.4	102	26.8	5.6	2.6	1	3	5.3	129	47	5.4	4.3	110	90	24	16	
TULARE		2 SIM										ACALA SJ-1									
41		36	1.12	46	4.3	100	24.9	5.4	3.5	2	3	5.9	127	46	5.7	4.4	110	100	18	14	

\* 100 percent selected for tests, less than 100 percent in the area.

Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1970 --- (Continued)

Production Area, Classification		Fiber Test Results										Processing Test Results - Carded Yarns										
		Digital Fibrograph		2.5% span		Unif.		Mike		Elongat'n 1/8"		S.A. Non-Lint		Color Raw Stock		Strength		Elongation		Appearance Index		Imprfect'n's
No	Grade	Name & Code	Staple	span	32s	In	Pct	Rds	Mpsi	G/tex	Pct	Pct	No	Pct	No	Pct	Lbs	Pct	No	No	No	No
WESTERN AREA---(Continued)																						
CALIFORNIA---(Continued)																						
VISALIA	31	36	1.12	45	4.2	101	27.5	5.4	1.9	1	3	4.3	130	49	5.5	4.4	120	100	17	15	79	
1 MID	31	35	1.11	46	4.3	99	25.6	5.3	2.2	2	3	4.4	122	45	5.4	4.4	110	90	20	16	73	
2 MID																						
WEST TEXAS																						
PECOS	41	35	1.12	44	3.8	83	23.3	8.3	2.5	2	3	5.1	110	39	6.7	5.2	100	80	24	20	69	
1 SIM																						
PECOS	41	35	1.11	44	4.0	82	20.8	7.4	2.6	2	3	6.0	102	35	6.7	5.1	110	80	39	26	64	
2 SIM																						

\* 100 percent selected for tests, less than 100 percent in the area.

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification				Fiber Test Results								Processing Test Results - Carded Yarns							
No	Sample Number	Digital Fibrograph		Fiber Strength		Elong. in 1/8"		S.A. Non-Lint		P & C Raw Stock		Elongation		Appearance Index		Imperfect's		Spin. Potential	
		Grade	Staple	2.5% span	Unif.	Mike Zero Gage	1/8" Gage	Yel	Comber Waste	27 tx	12 tx	27 tx	12 tx	27 tx	12 tx	No	No	No	No
SOUTHEASTERN AREA																			
ALABAMA																			
ORRVILLE	51	35	1.18	46	4.06	88	24.1	4.8	5.1	3	2	8.6	105	37	6.0	4.7	100	80	27
4 LM																		100	11
SOUTH CENTRAL AREA																			
ARKANSAS																			
WILSON	51	34	1.14	42	4.07	85	23.2	5.3	4.9	4	2	8.7	90	28	5.2	3.8	90	70	27
2 SL <sup>M</sup>																		100	7
MISSISSIPPI																			21
TUNICA	51	36	1.19	42	4.05	86	24.0	5.2	4.3	3	3	9.2	101	34	6.0	4.5	90	70	6
1 LM																			53
WESTERN AREA																			
NEW MEXICO																			
CARLSBAD	41	37	1.19	46	3.08	93	26.7	5.2	2.9	1	2	6.9	133	49	6.9	6.0	110	90	15
2 SL <sup>M</sup>																		100	4
DEXTER																			73
2 SL <sup>M</sup>	41	38	1.19	46	3.07	96	27.7	5.7	2.8	1	3	8.4	137	52	6.5	5.6	60	60	4
HATCH																			
1 SL <sup>M</sup>	41	38	1.19	46	3.08	92	26.4	5.4	3.0	1	2	6.6	140	54	6.8	6.2	100	90	24
TULARENSA																			80
1 MID	31	37	1.15	44	3.09	98	27.8	5.3	3.4	1	3	7.5	137	53	6.4	5.4	100	100	17
																			14
																			8

1/ 100 percent selected for tests, less than 100 percent in the area

2/ Cotton loaded card heavily during processing

\* Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1970

Production Area, Classification & Sample Number		Fiber Test Results										Processing Test Results - Combed Yarns											
		Array Length		Fiber Strength		Elong- at'n 1/8"		S.A. Non- Lint		Color Raw Stock		P & C Comber Waste		Strength		Elongation		Appearance Index		Imperfect'ns			
No	Grade	Stple	UQL	CV	Mike Zero Gage	1/8"	Gage	Gra	Yel	12 tx	7 tx	50s or 80s or 12 tx	80s or 12 tx	50s or 80s or 7 tx	50s or 80s or 12 tx	7 tx	50s or 80s or 7 tx	50s or 80s or 12 tx	7 tx	No	No	No	No
WESTERN AREA	ARIZONA SAFFORD	3	46	1.56	29	3.9	98	PIIMA S-4 35.0	7.6	2.6	4	5	75 PERCENT 6.7	15.8	67	36	6.3	5.3	110	120	3	3	
WEST TEXAS PECS	1	44	1.47	30	3.9	99	PIIMA S-4 34.8	7.1	1.8	4	5	6.7	19.2	59	37	6.2	5.2	120	120	2	1		

